

WHAT IS CLAIMED IS:

1. A printing system comprising:
a print requester host; and
5 a single or a plurality of print requestee
printers connected via a network to said host;
said host abstractly defining an output port to
an actual printer as said print requestee printer, for
printing.
10
2. A printing system according to claim 1, wherein
upon abstract definition of said output port to
said actual printer as said print requestee printer, said
host automatically selects a specific printer for
15 printing through sequential execution, between said
host and said printer on said network, of a retrieval
request from said host, a retrieval response from said
printer, a print request from said host, and a response
to said print request from said printer.
20
3. A printing system according to claim 2, wherein
upon occurrence of a print request on said host,
said host sends a retrieval request packet to all
printers on said network, wherein
25 said printer that has received said retrieval
request packet from said host, if enabled for print,
sends a retrieval response packet to said host, wherein

upon receipt of said retrieval response packet from said printer, said host selects as a requestee candidate a printer from which said host has first received a retrieval response, to send a print request
5 packet to said requestee candidate printer, wherein

said requestee candidate printer that has received said print request packet sends a validation response packet to a print request to said host, and wherein

10 upon receipt of said validation response packet from said requestee candidate printer, said host determines said requestee candidate printer as a print requestee to execute print processing.

15 4. A printing system according to claim 1, wherein said printer that has received a retrieval request packet from said host sends a retrieval response packet to said host, said retrieval response packet containing communication information on said printer
20 itself, wherein

upon receipt of said retrieval response packet from said printer, said host sends a print request packet to all printers on said network, said print request packet containing communication information on a
25 printer selected, and wherein

upon receipt of said print request packet, said printer compares printer communication information

contained in said print request packet with its own
printer communication information, said printer if
coincident recognizing that said printer itself has been
selected, to send a validation response packet to said
5 host.

5. A printing system according to claim 1, wherein
said host displays information indicative of a
printer selected on the basis of a printer response
10 packet, on a user interface.

6. A printing system according to claim 2, wherein
said host makes a retrieval request to said
printers on said network, said retrieval request
15 containing unique printer specific information for
specifying a printer, said host automatically selecting
a specific printer that conforms with previously entered
printer specific information, for printing.

20 7. A printing system according to claim 6, wherein
said host sends a retrieval request packet to
all printers on said network with unique printer specific
information designated, wherein
upon receipt of said retrieval request packet
25 from said host, said printer sends a retrieval response
packet to said host providing that said printer is
enabled for print and that said designated unique printer

specific information is coincident with its own printer specific information, wherein

upon receipt of said retrieval response packet from said printer, said host when said received printer
5 specific information coincides with said designated printer specific information sends a print request packet to said printer having coincident printer specific information, wherein

a specific printer that has received said print
10 request packet sends a validation response packet to a print request to said host, and wherein

upon receipt of said validation response packet from said printer, said host determines said printer as a print requestee for print processing.

15

8. A printing method for performing a printing operation by selective use of a single or a plurality of printers connected via a network from a print requester host, said method comprising the step of:

20 abstractly defining on said host an output port to an actual printer as a print requestee printer, to perform said printing operation.

9. A printing method according to claim 8, wherein

25 upon abstract definition on said host of said output port to said actual printer as said print requestee printer, a specific printer is automatically

selected for printing through sequential execution,
between said host and said printer on said network, of
a retrieval request from said host, a retrieval response
from said printer, a print request from said host, and
5 a response to said print request from said printer.

10. A printing method according to claim 9, wherein
upon occurrence of a print request on said host,
a retrieval request packet is sent to all printers on
10 said network, wherein

said printer that has received said retrieval
request packet from said host, if enabled for print,
sends a retrieval response packet to said host, wherein
upon receipt of said retrieval response packet
15 from said printer, said host selects as a requestee
candidate a printer from which said host has first
received a retrieval response, to send a print request
packet to said requestee candidate printer, wherein

said requestee candidate printer that has
20 received said print request packet sends a validation
response packet to a print request to said host, and
wherein

upon receipt of said validation response packet
from said requestee candidate printer, said host
25 determines said requestee candidate printer as a print
requestee to execute print processing.

11. A printing method according to claim 8, wherein
said printer that has received a retrieval
request packet from said host sends a retrieval response
packet to said host, said retrieval response packet
5 containing communication information on said printer
itself, wherein

upon receipt of said retrieval response packet
from said printer, said host sends a print request packet
to all printers on said network, said print request
10 packet containing communication information on a
printer selected, and wherein

upon receipt of said print request packet, said
printer compares printer communication information
contained in said print request packet with said its own
15 printer communication information, said printer if
coincident recognizing that said printer itself has been
selected, to send a validation response packet to said
host.

20 12. A printing method according to claim 8, wherein
said host displays information indicative of a
printer selected on the basis of a printer response
packet, on a user interface.

25 13. A printing method according to claim 9, further
comprising the steps of:
making a retrieval request from said host to said

printers on said network, said retrieval request containing unique printer specific information for specifying a printer; and

automatically selecting a specific printer that
5 conforms with previously entered printer specific information, to perform said printing operation.

14. A printing method according to claim 13, wherein
said host sends a retrieval request packet to
10 all printers on said network with unique printer specific information designated, wherein

upon receipt of said retrieval request packet from said host, said printer sends a retrieval response packet to said host providing that said printer is
15 enabled for print and that said designated unique printer specific information is coincident with its own printer specific information, wherein

upon receipt of said retrieval response packet from said printer, said host when said received printer
20 specific information coincides with said designated printer specific information sends a print request packet to said printer having coincident printer specific information, wherein

a specific printer that has received said print
25 request packet sends a validation response packet to a print request to said host, wherein

upon receipt of said validation response packet

from said printer, said host determines said printer as a print requestee to execute print processing.

15. A print requester apparatus for performing a
5 printing operation by selective use of any one of a plurality of printers connected via a network, said apparatus comprising:

an output port that is abstractly defined as an output path to an actual printer when a print request
10 takes place; and

a printer retrieval unit which, upon abstract definition of said output port, automatically selects a specific printer for printing through sequential execution, between said printer retrieval unit and said
15 printer on said network, of a retrieval request from said host, a retrieval response from said printer, a print request from said host, and a response to said print request from said printer.

20 16. A print requester apparatus according to claim 15, wherein

upon occurrence of a print request, said printer retrieval unit sends a retrieval request packet to all printers on said network, wherein

25 upon receipt of a retrieval response packet from a print enabled printer, said printer retrieval unit selects as a requestee candidate a printer from which

said printer retrieval unit has first received a retrieval response, to send a print request packet to said requestee candidate printer;

upon receipt from said requestee candidate
5 printer of a validation response packet to said print request packet, said printer retrieval unit determines said requestee candidate printer as a print requestee to execute print processing.

10 17. A print requester apparatus according to claim 16, wherein

said printer retrieval unit displays information indicative of a printer selected on the basis of a printer response packet, on a user interface.

15

18. A print requester apparatus according to claim 15, wherein

said printer retrieval unit makes a retrieval request to said printers on said network, said retrieval
20 request containing unique printer specific information for specifying a printer, said printer retrieval unit automatically selecting a specific printer that conforms with previously entered printer specific information, to perform a printing operation.

25

19. A printer connected via a network to a print requester host, said printer comprising:

a retrieval response unit for allowing itself to be selected as a print requestee through a sequential execution of a retrieval response to a retrieval request from said host and a response to a print request from said host.

20. A printer according to claim 19, wherein said retrieval response unit issues a retrieval response packet if it is enabled for print when accepting a retrieval request packet from said host, and wherein upon a receipt of a print request packet from said host, said retrieval response unit issues a validation response packet to a print request so as to allow said host side to determine said printer as a print requestee.